

CLAIMS

What is claimed is:

- 1 1. A composition comprising an isolated bacterium belonging to
2 the genus *Dietzia* and deposited with the American Type Culture Collection as
3 Accession Number PTA-4125.
- 1 2. The composition of claim 1, further comprising an animal
2 feed.
- 1 3. The composition of claim 2, wherein the animal feed is
2 selected from the group consisting of grain, hay, straw, silage, cornstalks, corn,
3 corn meal, corn glutenmeal, soybean meal, soy flour, soybean mill feed, cottonseed
4 hulls, oats, barley, hominy, cereal brans, rice mill by-product and mixtures thereof.
- 1 4. The composition of claim 1, further comprising a feed
2 additive.
- 1 5. The composition of claim 4, wherein the feed additive is
2 selected from the group consisting of vitamins, minerals, protein supplements,
3 drugs, and mixtures thereof.
- 1 6. The composition of claim 1, wherein the composition is
2 incorporated into a dosage form selected from the group consisting of tablets,
3 drenches, boluses, and capsules.
- 1 7. The composition of claim 6, wherein the composition is
2 incorporated into a tablet and further wherein the tablet further comprises a base, a
3 disintegrator, an absorbent, a binder and a lubricant.
- 1 8. A method for treating Johne's disease, comprising
2 administering to a mammal the feed composition of claim 1.

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- 1 9. The method of claim 8, wherein the mammal is a bovine.
- 1 10. The method of claim 8, wherein the method comprises oral
2 administration of the feed composition.
- 1 11. A composition comprising a pharmacologically active dose of
2 an isolated bacterium belonging to the genus *Dietzia* and deposited with the
3 American Type Culture Collection as Accession Number PTA-4125, an active
4 fragment thereof, a protein secreted therefrom, or combinations thereof.
- 1 12. The composition of claim 11, wherein the composition is
2 incorporated into a dosage form selected from the group consisting of tablets,
3 drenches, boluses, and capsules.
- 1 13. A method of treating Johne's disease, comprising
2 administering to a mammal the composition of claim 11.
- 1 14. The method of claim 13, wherein the mammal is a bovine.
- 1 15. The method of claim 13, wherein the method comprises oral
2 administration of the composition.
- 1 16. A feed composition, comprising a bacterium of the genus
2 *Dietzia* and an animal feed.
- 1 17. The feed composition of claim 16, wherein the animal feed is
2 selected from the group consisting of grain, hay, straw, silage, cornstalks, corn,
3 corn meal, corn glutenmeal, soybean meal, soy flour, soybean mill feed, cottonseed
4 hulls, oats, barley, hominy, cereal brans, rice mill by-product and mixtures thereof.
- 1 18. A method of treating Johne's disease, comprising
2 administering to a mammal the feed composition of claim 16.
- 1 19. The method of claim 18, wherein the mammal is a bovine.

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1 20. The method of claim 19, wherein the method comprises oral
2 administration of the composition.

1 21. A feed additive, comprising a bacterium of the genus *Dietzia*
2 and a feed additive.

1 22. The feed additive of claim 21, wherein the feed additive is
2 selected from the group consisting of vitamins, minerals, protein supplements,
3 drugs, and mixtures thereof.

1 23. A method of treating Johne's disease, comprising
2 administering to a mammal the feed additive of claim 21.

1 24. The method of claim 23, wherein the mammal is a bovine.

1 25. The method of claim 23, wherein the method comprises oral
2 administration of the composition.

1 26. A composition, comprising a pharmacologically active dose of
2 a bacterium of the genus *Dietzia*, an active fragment thereof, a protein secreted
3 therefrom, or combinations thereof, such that the pharmacologically active dose is
4 capable of reducing or preventing the symptoms of a disease or syndrome whose
5 causative agent is a mycobacterium.

1 27. A method of treating a disease or syndrome whose causative
2 agent is a mycobacterium by administering to a mammal the composition of claim
3 26.

1 28. The method of claim 27, wherein the mammal is a bovine.

1 29. The method of claim 27, wherein the method comprises oral
2 administration of the composition.

1 30. A method of culturing bacteria belonging to the genus *Dietzia*
2 comprising culturing the bacteria in a medium comprising Tryptose soy broth.